



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,950	02/14/2001	Guohua LI	9793822-0118	1664

7590 03/07/2003

David R Metzger
Sonnenschein Nath & Rosenthal
Wacker Drive Station
PO Box 061080
Chicago, IL 60606-1080

EXAMINER

BOS, STEVEN J

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-6

Office Action Summary

Application No.
09/701,950

Applicant(s)
Li et al

Examiner
Steven Bos

Art Unit
1754



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 1754

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1,4,7,11,15,21, "M includes at lest one of 3d transition metals" is indefinite as to which metals are considered to be "3d transition metals". Also, --least-- appears to be intended for "lest".

In claims 1,4,7,11,15,21, "plurality of substances ... proving a starting material ... 1.2" is indefinite as it does not point out and distinctly claimed what are considered to be the plurality of substances which would provide the starting material. Also, it appears that "proving" was intended to be --providing-- otherwise it is indefinite.

In claims 4,11,21, although the claim is directed to making a battery there are no positive process steps recited for making the battery which renders the claim confusing and indefinite as to its scope.

In claim 8, "an inert gas is introduced after ... air contained in said precursor" is indefinite as to where the gas is introduced and as to how the precursor can have an "atmosphere" and as to how vacuum can be "substituted" therefor.

In claim 9, "allowed to coexist with the precursor" is indefinite as to what is meant by this language.

Art Unit: 1754

In claim 9, "said inert gas" lack(s) proper antecedent basis in the claim(s).

In claim 10, "battery" lack(s) proper antecedent basis in the claim(s).

In claim 11, "de-aerating air" is awkward and confusing; it appears that --removing air-- was intended.

In claim 11, "said precursor obtained in a state free of air by said de-aerating step" is indefinite as to what this refers to since there is no "precursor obtained in a state free of air."

In claim 12, "an inert gas is introduced after ... air contained in said precursor" is indefinite as to where the gas is introduced and as to how the precursor can have an "atmosphere" and as to how vacuum can be "substituted" therefor.

In claim 13, "allowed to coexist with the precursor" is indefinite as to what is meant by this language.

In claim 13, "said inert gas" lack(s) proper antecedent basis in the claim(s).

In claim 15, "for synthesis or said precursor" is indefinite and it appears that --for synthesis of said precursor-- was intended.

In claims 18,24, " $\text{LiFe}_x\text{Mn}_{1-x}\text{PO}_4$ " is indefinite as to what the value of "x" is. It cannot have the previously recited range of values for x.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1754

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6,15-19,21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/40541.

WO '541 suggests the instantly claimed process wherein $\text{Fe}(\text{CH}_2\text{COOH})_2$ can be considered as a reducing agent and as the electrically conductive agent, each due to the Fe in the compound. See example 1.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, In re Malagari, 182 USPQ 549.

Claims 1-6,15-19,21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 11-25983.

JP '983 suggests the instantly claimed process wherein $\text{FeC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ can be considered as a reducing agent and as the electrically conductive agent, each due to the Fe in the compound. See examples 2,4,6.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range

Art Unit: 1754

disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Claims 1-6, 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker '033.

Barker suggests the instantly claimed process using carbon as a reducing agent. Also taught is the use of an iron compound in the starting material which can also be considered a reducing agent due to the Fe in the compound. See cols. 5, 6.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is (703) 308-2537. The examiner is on the increased flexitime program schedule and can normally be reached between 8AM and 6PM Monday through Friday. The FAX No. for After Final amendments is 703-872-9311; for all

Application/Control Number: 09/701950

Page 6

Art Unit: 1754

others it is 703-872-9310. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.


Steven Bos
Primary Examiner
Art Unit 1754